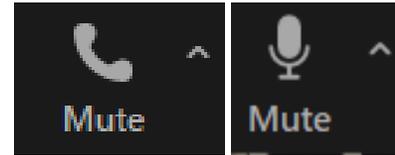


# **Columbia Basin Collaborative Hatchery & Harvest Work Group**

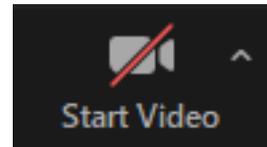
**March 21st, 2023**

# Zoom Features

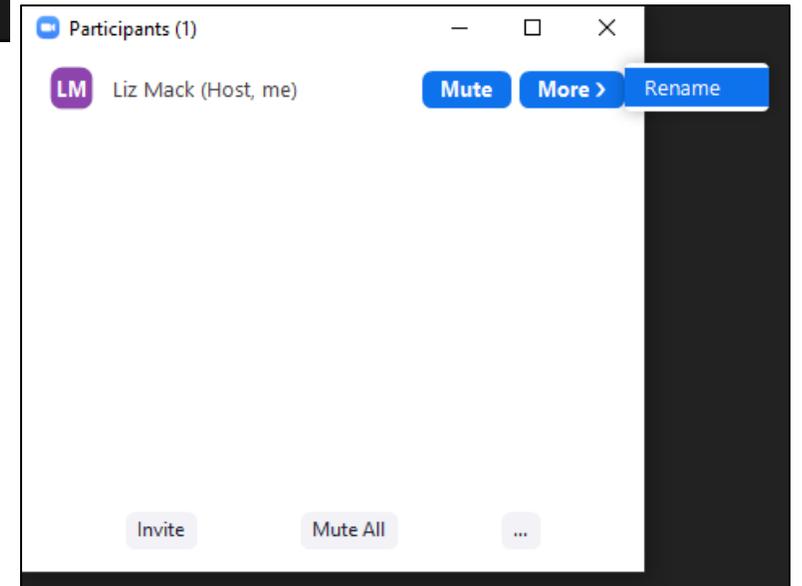
Keep yourself on mute when not speaking.



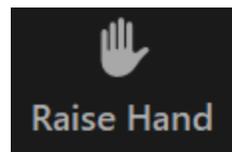
Use video, if possible, to promote face to face communication.



Please **rename yourself** in the participant panel to include your title and affiliation.

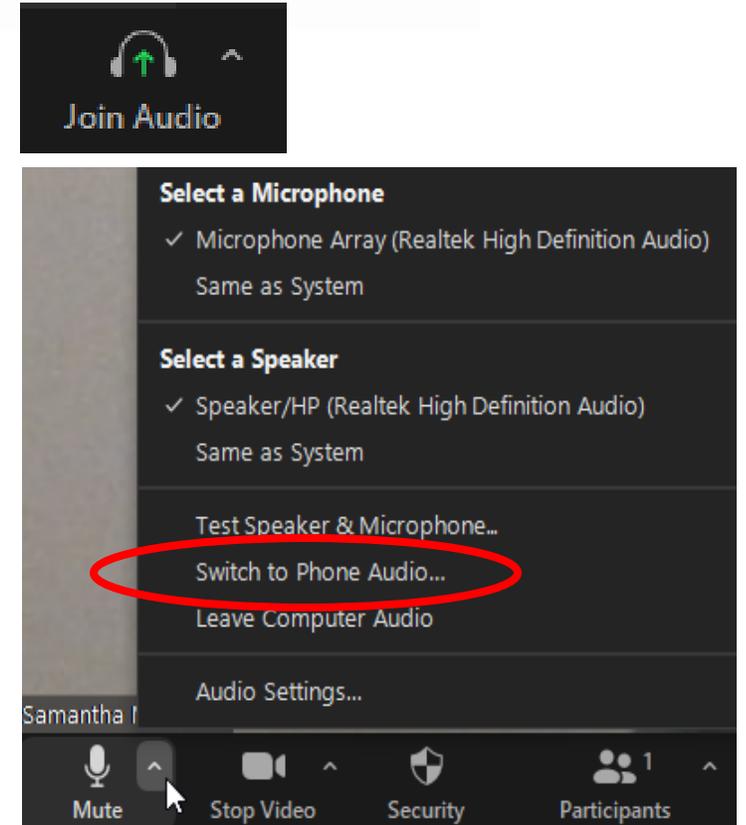


Find your **raise hand function** at the bottom of your screen



# Zoom Features

- If you have not **connected your audio**, click on the “Join Audio” at the bottom left of your screen.
- To **switch to phone**, click the arrow next to the microphone icon and select “Switch to Phone Audio”.
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*For technical support, please contact Grant Simmons, 831-331-7077*

# **Welcome, Agenda Review, and Updates**

# Meeting Guidelines

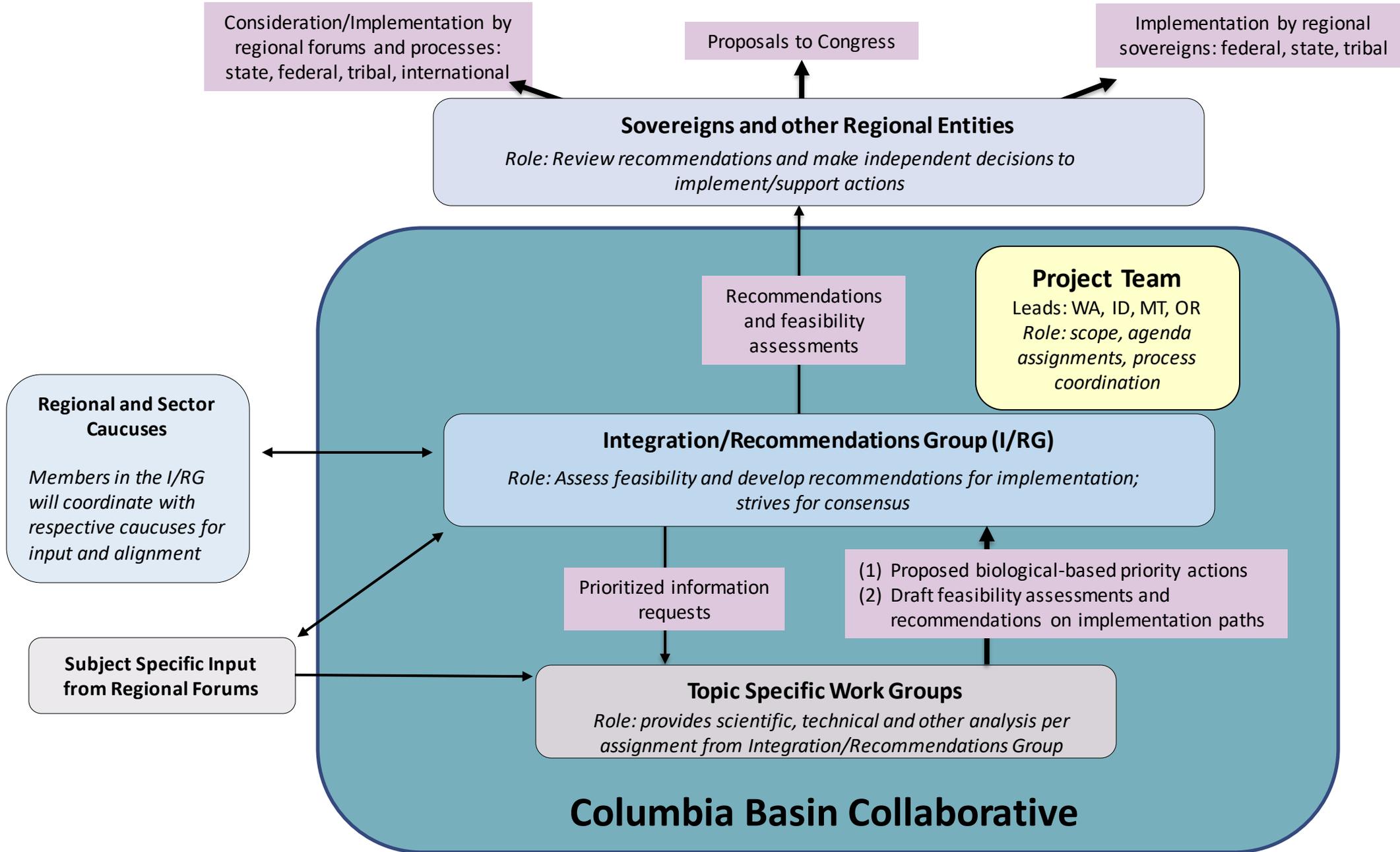
- Honor the agenda and be present
- Listen to understand and ask questions to clarify
- Balance speaking time and don't pile on
- Seek alignment and common ground wherever possible
- Focus on your interests, not positions
- Invent options for mutual gain
- Separate the people from the problem



# Agenda Review

Time (PT)	Topic
<b>1:00 – 1:10 pm</b>	Welcome, Agenda Review, and Updates
<b>1:10 – 1:25 pm</b>	Review and Discussion of Harvest Recommendation
<b>2:25– 2:35 pm</b>	Break
<b>2:35– 3:50 pm</b>	Review and Discussion of Hatchery Recommendation
<b>3:50 – 4:00 pm</b>	Confirm Next Steps and Action Items

# A regional approach to achieving the Columbia Basin Partnership goals



# Consensus on Recommendations

*Consensus is reached when every Member, at the very least, does not oppose a decision.*

# **Review and Discussion of Harvest Recommendation**

# Draft Harvest Recommendation

Support and enhance current and future tribal fisheries, management, and fishing-based economies that the CBP healthy and harvestable goals would provide for salmon and steelhead in the basin.

# Tribal Harvest Recommendation

This presentation attempts to provide a tribal basis for the recommendation and the actions.

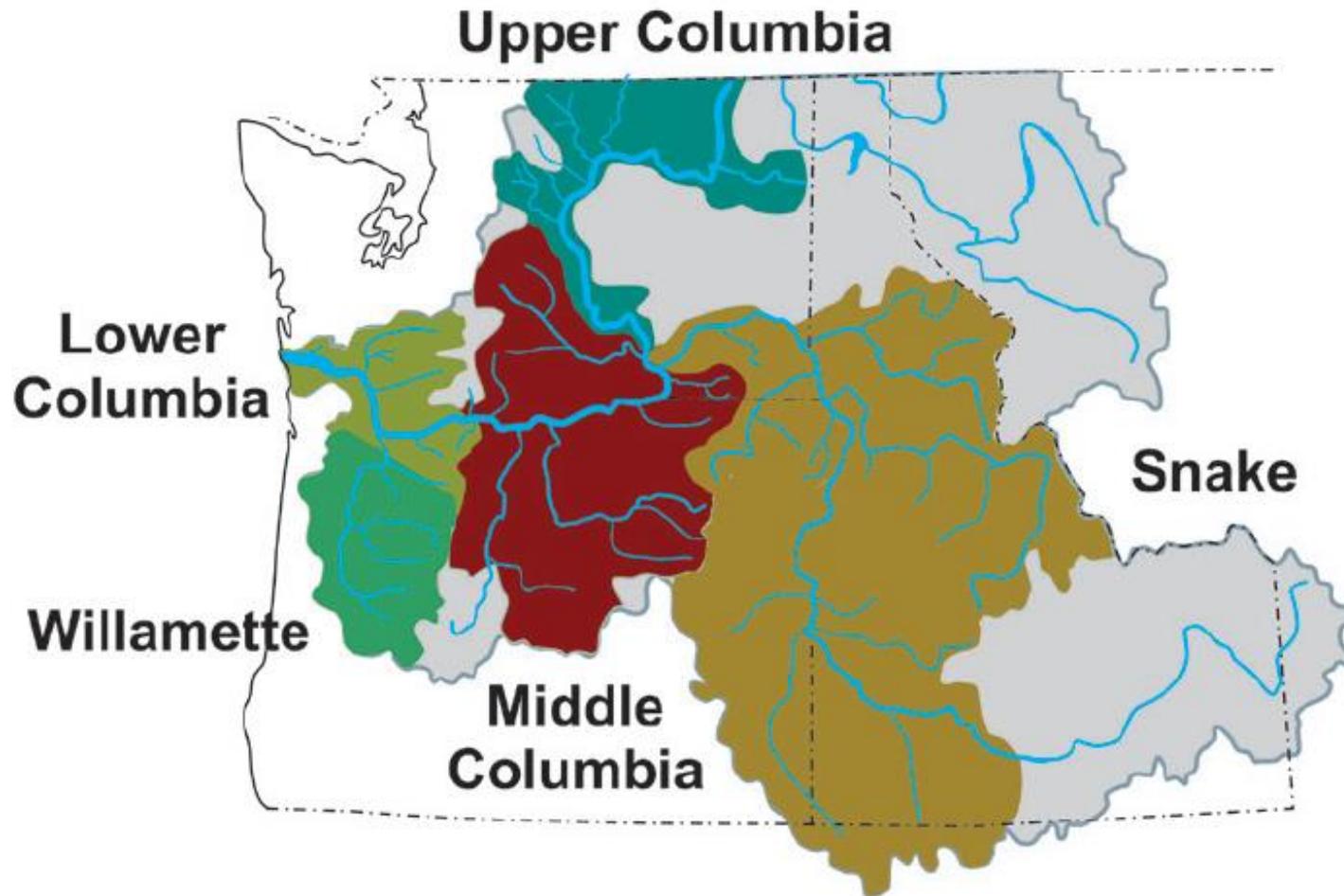
This could be compatible with any harvest recommendation(s) that could be developed for Non-Tribal Fisheries.

# CBC Charter – Background & Problem Statement

“Salmon and steelhead are integral to the culture, identity, economy, and ecosystem of the Columbia Basin. Development over the last 200 years has significantly impacted the once mighty runs of these fish so that today, wild runs are less than 10% of what they were historically, and many stocks are blocked from portions of their historical habitat by hydroelectric dams. Through the Columbia Basin Partnership Task Force (CBPTF) convened by NOAA Fisheries, a diverse group of states, tribes and stakeholders agree to a vision for the future of the Columbia Basin and qualitative and quantitative goals for wild and hatchery returns of each of the 27 stocks of salmon and steelhead. The scenarios developed during the CBPTF identified opportunities for immediate action. The comprehensive vision for the future of the Columbia Basin seeks healthy and harvestable salmon abundances within the context of a vibrant economy and culture.”

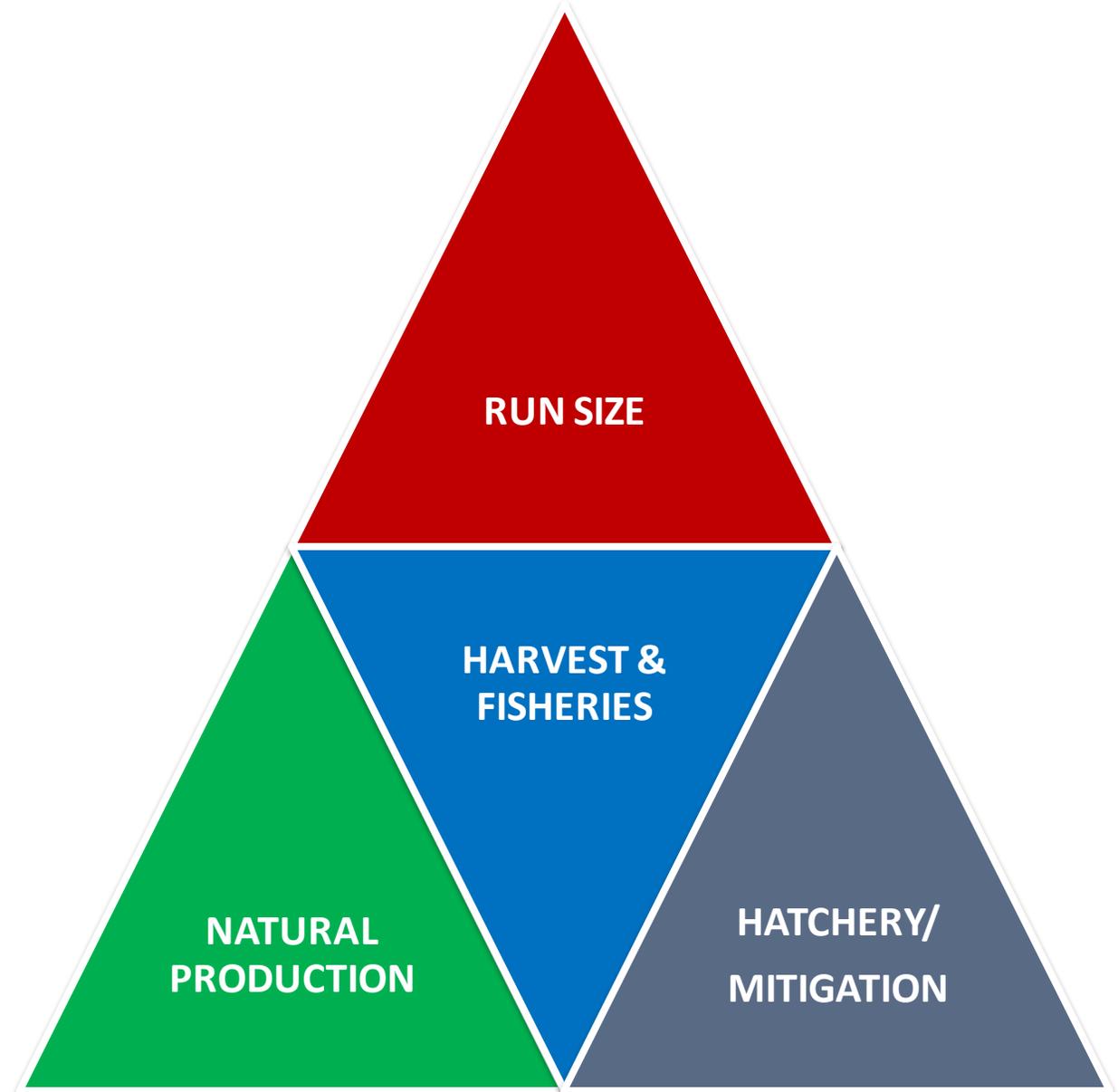
# Applicable Regions for Tribes of I/REG

**FIGURE 2. Areas addressed by regional technical teams: Lower Columbia/Willamette, Middle Columbia, Upper Columbia, and Snake.**



# Categories of goals addressed by the CBP

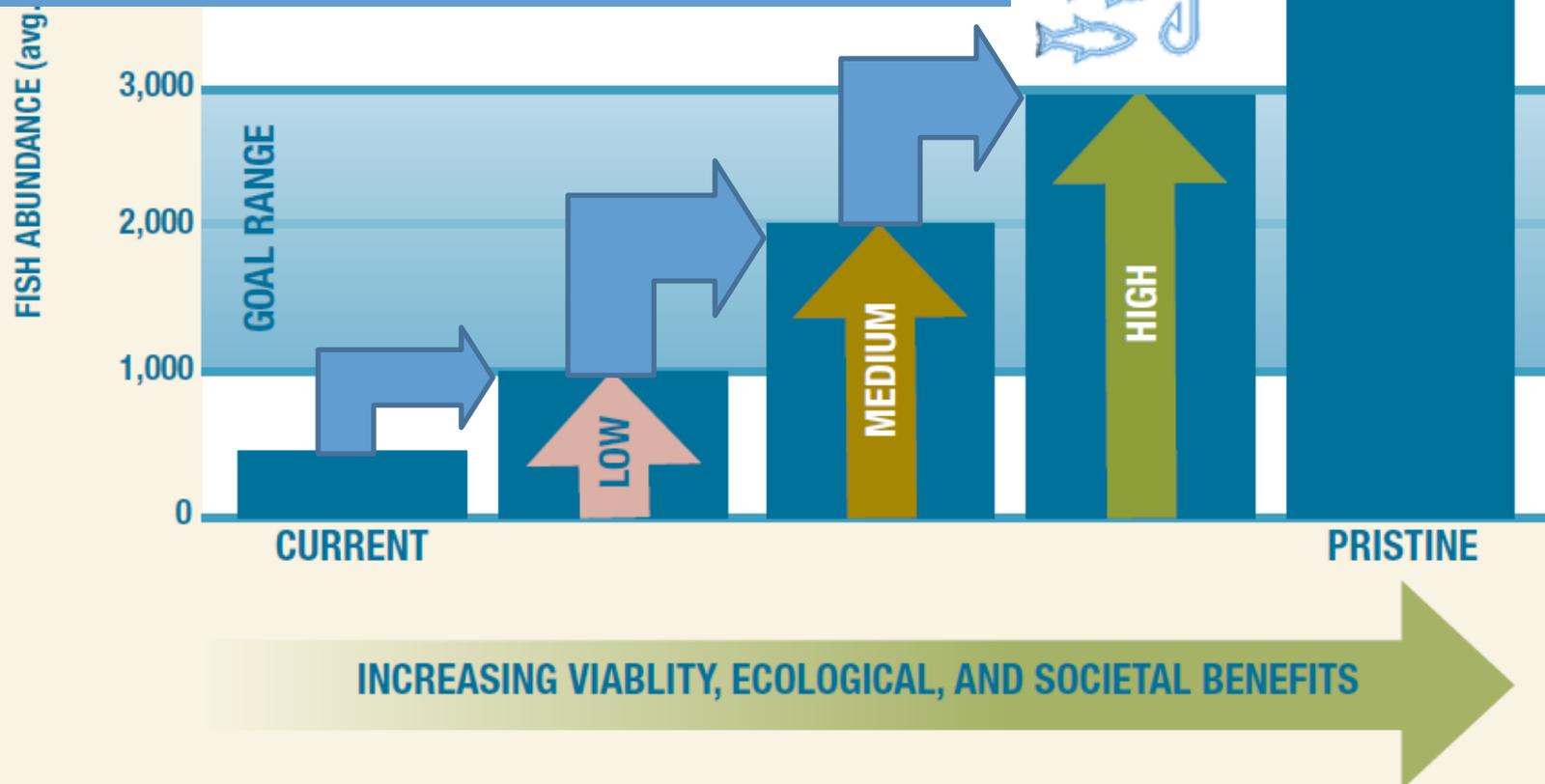
Adult fish numbers are an essential measure and common currency for fish status, fishery value, and hatchery mitigation purposes



# CBP Conceptual Goal Range

FIGURE 5. Concepts for defining natural production goals.

Goal ranges also reflect the increasing benefits that more fish will provide, including higher viability of fish species, increased fishing opportunities, and enhanced social, cultural, economic, and ecological benefits.



# Natural- Origin Escapement Ranges

**TABLE 8. Aggregate stock-specific abundance values for natural-origin escapement under current and historical conditions, and low, medium, and high goal ranges.**

Stock	Current	Historical	Low goal	Med goal	High goal	High as % of historical
L Col R Spring Chinook	2,240	101,700	9,800	21,550	33,300	33%
L Col R Fall (tule) Chinook	12,329	169,700	28,050	54,100	82,000	48%
L Col R Late Fall (bright) Chinook	10,800	33,000	11,100	16,700	22,200	67%
L Col R Fall (bright) Chinook	11,000	0	11,000	11,000	11,000	-
L Col R Coho	31,524	301,900	67,925	129,550	191,400	63%
Col R Chum	11,762	461,300	16,500	33,000	49,500	11%
SW WA Winter Steelhead	3,252	19,100	4,650	5,850	6,950	36%
L Col R Winter Steelhead	5,989	41,900	19,000	27,900	36,400	87%
L Col R Summer Steelhead	10,594	61,200	21,100	29,800	38,100	62%
M Col R Spring Chinook	11,600	246,500	17,750	40,425	114,500	46%
M Col R Summer/Fall Chinook	11,500	17,000	4,000	13,000	16,000	94%
M Col R Coho	6,324	75,000	5,300	11,600	19,900	27%
M Col Sockeye	1,036	230,000	7,500	45,000	107,500	47%
M Col R Summer Steelhead	18,155	132,800	21,500	43,850	69,150	52%
U Col R Spring Chinook	1,430	259,450	11,500	19,840	30,135	12%
U Col R Summer Chinook	16,920	733,500	9,000	78,350	131,300	18%
U Col R Fall Chinook	92,400	680,000	9,200	62,215	87,835	13%
U Col R Coho	392	44,500	7,500	15,000	26,000	58%
U Col R Sockeye	40,850	1,800,000	31,500	580,000	1,235,000	69%
U Col R Summer Steelhead	1,480	1,121,400	7,500	31,000	47,000	4%
Snake R Spring/Summer Chinook	6,988	1,000,000	33,500	98,750	159,500	16%
Snake R Fall Chinook	8,360	500,000	4,200	10,780	23,360	5%
Snake R Coho	100	200,000	8,900	26,600	44,100	22%
Snake R Sockeye	100	84,000	5,500	15,750	26,000	31%
Snake R Summer Steelhead	28,000	600,000	22,500	75,000	131,500	22%
U Will R Spring Chinook	4,278	312,170	28,900	47,850	66,800	21%
U Will R Winter Steelhead	2,816	220,000	16,290	27,805	39,320	18%
<b>Totals</b>	<b>352,119</b>	<b>9,446,120</b>	<b>441,165</b>	<b>1,572,265</b>	<b>2,845,750</b>	<b>30%</b>

# Current and Anticipated Hatchery-Origin Production

**TABLE 9. Current and anticipated hatchery juvenile production and adult returns to the Columbia River of hatchery-origin salmon and steelhead.**

Species	Current Production (Avg.)				Anticipated production	
	Yearlings	Subyearlings	Total	Adult returns	Total	Adult returns
Spring Chinook	31,870,500	2,055,000	33,925,500	217,100	47,402,500	301,800
Summer Chinook	3,102,000	1,184,000	4,286,000	45,000	14,400,000	140,000
Fall Chinook	900,000	62,366,500	63,266,500	456,300	73,956,500	564,300
Chum	0	770,000	770,000	300	770,000	300
Coho	20,350,000	508,600	20,858,600	374,000	21,239,000	377,600
Sockeye	900,000	4,500,000	5,400,000	34,070	15,100,000	101,300
Winter Steelhead	1,604,000	0	1,604,000	28,000	1,604,000	28,000
Summer Steel-head	12,780,300	1,350,000	14,130,300	344,700	15,645,000	365,000
<b>Total</b>	<b>71,506,800</b>	<b>72,734,100</b>	<b>144,240,900</b>	<b>1,499,470</b>	<b>190,117,000</b>	<b>1,878,300</b>

# CBP Harvest at Current and at High Goal

**TABLE 10. Current (recent 10-year average) harvest of Columbia Basin salmon and steelhead in freshwater (Col basin) and ocean fisheries and potential harvest at high natural production goals and anticipated hatchery production levels. (See Table 9 for more detail on anticipated hatchery production levels).**

Stock	Harvest (current)			Harvest (at high goal)		
	Col basin	Ocean	Total	Col basin	Ocean	Total
<b>Chinook</b>	<b>429,800</b>	<b>426,150</b>	<b>855,950</b>	<b>1,280,400</b>	<b>707,600</b>	<b>1,988,000</b>
Spring	88,800	7,400	96,200	619,800	34,300	654,100
Summer	31,100	41,500	72,600	153,000	207,000	360,000
Fall	309,900	377,250	687,150	507,600	466,300	973,900
<b>Chum</b>	<b>80</b>	<b>0</b>	<b>80</b>	<b>41,000</b>	<b>0</b>	<b>41,000</b>
<b>Coho</b>	<b>134,800</b>	<b>95,100</b>	<b>229,900</b>	<b>336,900</b>	<b>121,700</b>	<b>458,600</b>
<b>Sockeye</b>	<b>42,082</b>	<b>0</b>	<b>42,082</b>	<b>1,217,600</b>	<b>0</b>	<b>1,217,600</b>
<b>Steelhead</b>	<b>222,300</b>	<b>0</b>	<b>222,300</b>	<b>521,200</b>	<b>0</b>	<b>521,200</b>
Winter	19,700	0	19,700	59,000	0	59,000
Summer	202,600	0	202,600	462,200	0	462,200
<b>Totals</b>	<b>829,062</b>	<b>521,250</b>	<b>1,350,312</b>	<b>3,397,100</b>	<b>829,300</b>	<b>4,226,400</b>

# **CBP** + CBC Commitment to Tribes

- Primary food source and fish are central to tribal culture, ceremony, subsistence, and economy
- Provide diverse, productive, and dependable tribal harvest and fishing
- Produce hatchery fish to support tribal treaty/trust responsibilities and meaningful fishery opportunities to mitigate for historical losses
- Equitable sharing of costs and benefits across economic sectors

# CBP + **CBC** Commitment to Tribes

- Acknowledges, respects, and protects tribal cultural values, and are consistent with treaty rights
- Help produce and sustain abundant and harvestable salmon that addresses the needs of the Tribal fisheries
- Promote the trust responsibilities of the federal government to tribes
- Address salmon and mitigation for past and current impacts with a goal of healthy and harvestable populations spread as widely as possible, and consistency with state and tribal co-management

# Tribal Harvest Recommendation

Support and enhance current and future tribal fisheries, management, and fishing-based economies that the CBP healthy and harvestable goals would provide for salmon and steelhead in the basin.

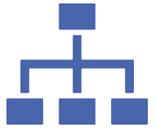
# Actions to Support Recommendation

- (1) **Tribal Food & SCEE Values**: understand and prioritize food production and acquisition through Treaty and other tribal fishing and to achieve tribal Social, Cultural, Economic, and Ecological values (or SCEE) at levels up to High goal,
- (2) **Catch Fish**: develop traditional fishing gears/methods to catch more fish,
- (3) **Use Fish**: develop storage and other fishing-based or related infrastructure to process and use larger volumes of fish,
- (4) **Economy & Livelihood**: develop suitable markets to support tribal fishing-based economies, and
- (5) **Tribal Management**: improve and expand upon Tribal management and harvesting of fish to keep pace with more diverse and larger set of fisheries that higher end abundances would support.

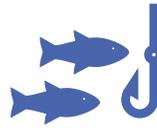
# Actions to Support Recommendation

- (1) Action Item #1 -- Prioritize tribal ceremonial, subsistence and commercial needs and fishing-based economies**
- (2) Action Item #2 -- Fund and Maintain the Use of Traditional Fishing Practices to Harvest Columbia Basin Salmon and Steelhead**
- (3) Action Item #3 -- Fund Critical Fish Processing and Storage Infrastructure for Treaty or Tribal Fisheries to Take Full Advantage of Our First-Foods**
- (4) Action Item #4 -- Fund and Establish Seafood Markets for Salmon and Steelhead Harvested in Treaty and other Tribal Fisheries and Supporting other Tribal Economic Activities Fish Can Provide**
- (5) Action Item #5 -- Improve and Expand Harvest and Hatchery Management to Support Current and Future Abundances of Salmon and Steelhead in Various Regions of Basin**

# Essential Components to Successful Fisheries/Harvest for CBP Goals



BENEFITS



FISHING



INFRASTRUCTURE



MARKET



MANAGEMENT

# Next Steps

Draft Harvest Recommendation and Actions were shared with the Harvest Subgroup on Monday, 3/20/2023:

- It will be essential to determine levels of treaty/tribal harvest by region/stock at each quantitative goal (LOW up to HIGH)
- Example of “Snake River Region and Nez Perce Treaty Harvest” was provided that could serve as a template for use for other regions and tribal fisheries
- Subgroup needs additional time to review Recommendation Form and supporting rationale and information

Conduct additional Subgroup meeting(s) to try and finalize the recommendation

Bring back recommendation for consideration by the Hatcheries & Harvest Work Group

# Current Harvest Recommendations

Harvest Recommendation #1 : Develop sufficient and stable funding for additional monitoring tools and technology to assess catches and returns to optimize in-season management, including tagging.

- For example, increase sample rates with additional funding to provide more boots on the ground, improve software technology to analyze sample data in real time and increase PIT tag arrays in geographical strategic areas. In some cases, consider improving electronic reporting of catch for commercial and recreational fisheries.

**Recommended Actions:** Assess the funding sources to bolster existing systems.

Harvest Recommendation #2 : Enhance forecast models by ensuring complete basin-wide run reconstruction is implemented to develop accurate database for forecasts **to help develop an accurate pre-season models and in-season models of run sizes, include improving the adult fish sampling facility at Bonneville Dam.**

Harvest Recommendation #3 : Enhance run size updates by expanding monitoring and recording of real-time measures of effort, encounter, and harvest rates .

Harvest Recommendation #4 : Assess how climate change is impacting salmon at all life stages and effecting harvest opportunities.

**Recommended Actions:** Collect and gather existing information and data related to climate change effects on salmon / steelhead.

- Use information for forecast modeling for in-season
- Include ocean changes, freshwater carrying capacity, and impacts to productivity
- Ecosystem changes caused by climate change

Harvest Recommendation #5 : Support and enhance current and future tribal fisheries, management, and fishing-based economies that the CBP healthy and harvestable goals would provide for salmon and steelhead in the basin.



# Break

10 minutes



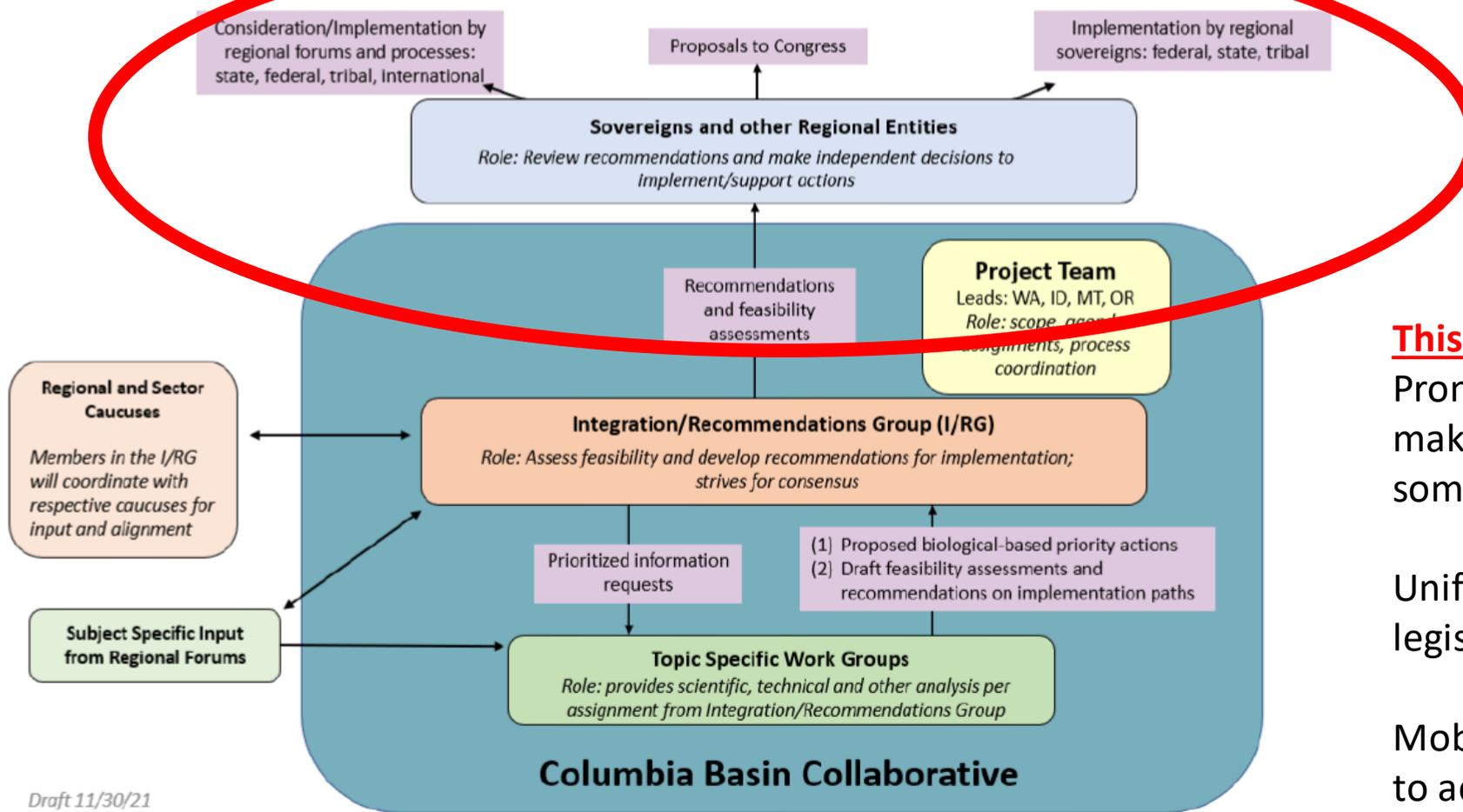
# **Review and Discussion of Hatchery Recommendation**

# Draft Hatchery Recommendation

Repair, maintain, and build improvements to existing infrastructure and find sources of funding for deferred maintenance and system upgrades, including new equipment (capital investments). Enhance infrastructure to be climate change resilient. Utilize summary of Infrastructure needs and associated costs for Columbia basin federally funded hatcheries developed by state, federal, and tribal managers.

# CBC Process Relative to Hatchery Infrastructure

**A regional approach to achieving the Columbia Basin Partnership goals**



**Asking I/RG Support For Hatchery Infrastructure Needs**

This "Ask" is consistent with our approach: Promote recommendations to decision-makers, recognizing that there is urgency on some of these fronts.

Unified voice to leverage funding from legislators/Congress.

Mobilize and motivate people across basin to achieve CBP goals.

# Next Steps

KW: Draft meeting summary; schedule next meeting

Harvest Subgroup: Meet and discuss; bring the recommendation back to the April meeting; include David Moskowitz and Susan Bishop

Hatchery Subgroup: Meet and discuss; include David M., Gary Marston, and Casey Baldwin

Upcoming Topics

- Climate impacts from NW Science Center



Thank you ~



Photo credit: Roger Tabor